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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,697	01/24/2002	Tetsuya Matsui	381HI/50780	7835

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EXAMINER

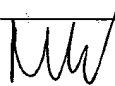
BORISSOV, IGOR N

ART UNIT	PAPER NUMBER
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3629

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/053,697	<b>Applicant(s)</b> MATSUI ET AL.	
	<b>Examiner</b> Igor Borissov	<b>Art Unit</b> 3629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 12-14 are rejected under 35 U.S.C. 101 because the claimed method for environmental improvement do not recite a limitation in the technological arts. The independently claimed method steps of: *identifying chemical substances to be input in a process; identifying the chemical substances that must be managed; setting the release amounts to the release-transfer destinations; and evaluating the environmental effects due to discharging the chemicals* are abstract ideas which can be performed mentally without interaction of a physical structure. Said method steps may be understood as merely keeping notes about materials used. However, the claimed invention must utilize technology in a non-trivial manner (*Ex parte Bowman*, 61 USPQ2d 1665, 1671 (Bd. Pat. App. & Inter. 2001)). Although *Bowman* is not precedential, it has been cited for its analysis.

Because the independently claimed invention is directed to an abstract idea which does not recite a limitation in the technological arts, those claims and claims depending from them, are not permitted under 35 USC 101 as being related to non-statutory subject matter. However, in order to consider those claims in light of the prior art, examiner will assume that those claims recite statutorily permitted subject matter.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-12 and 15-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Frankland et al. (US 2002/0026339 A1).

Frankland et al. (hereinafter Frankland) teaches a system and method for managing changes in regulatory requirements for business activities at an industrial facility, comprising:

Claim 1. Said system, comprising: a plurality of databases containing information on chemical and physical properties of materials used at a facility, including hazards associated with said materials, ecology-toxicity and environmental release information [0416]; [0417]. Information as to *wherein based on the types and input amounts of the materials that are input in a certain process... said chemical substances that are released are set* is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. See: *In re Gulack* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) *In re Dembiczak* 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999). The specific example of non-functional descriptive material is provided in MPEP 2106, Section VI: (example 3) a process that differs from the prior art only with respect to non-functional descriptive material that cannot alter how the process steps

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are to be performed. The method steps, disclosed in Frankland would be performed the same regardless the specific content of the database of how the database is organized.

Claim 2. Said system, comprising: a database containing information on hazards associated with said materials, ecology-toxicity and environmental release information [0416]; [0417]. Information as to *information that evaluates environmental effects* ... is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. See: *In re Gulack* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) *In re Dembiczak* 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).

Claim 3. Said system, including a database containing information including investment effectiveness including tracking cost related to environmental health and safety regulations [0034]; [0385]; [0421].

Claims 4. Said system, comprising: a plurality of equipment; and said database contains information related to investment and environmental compliance effectiveness [0034]; [0421]. (Examiner understands the word *equipment* as encompassing plural items used in operation or activity. See: Merriam-Webster's Collegiate Dictionary; 10<sup>th</sup> ed.)

Claim 5. Said system, comprising: a database containing environmental release related information, which is represented in table format [0430].

Claim 6. Said system, comprising: a plurality of databases containing information on chemical and physical properties of materials used at a facility, including hazards associated with said materials, ecology-toxicity and environmental release information [0416]; [0417]. Information as to *wherein based on the types and input amounts of the materials that are input in a certain process... said other enterpriser in the same industry is output* is non-functional language and given no patentable weight. Non-

functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. See: *In re Gulack* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) *In re Dembiczak* 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).

Claim 7. Said system, comprising: a plurality of databases containing information on chemical and physical properties of materials used at a facility, including hazards associated with said materials, ecology-toxicity and environmental release information [0416]; [0417]. Information as to *wherein based on the types and input amounts of the materials that are input in a certain process... the release rates of said equipment* is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. See: *In re Gulack* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) *In re Dembiczak* 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).

Claim 8. Said system, comprising: a plurality of databases containing information on chemical and physical properties of materials used at a facility, including hazards associated with said materials, ecology-toxicity and environmental release information [0416]; [0417]. Information as to *wherein based on the types and input amounts of the materials that are input in a certain process... said other enterpriser in the same industry is output* is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. See: *In re Gulack* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) *In re Dembiczak* 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).

Claim 9. Said system, comprising: a plurality of databases containing information on chemical and physical properties of materials used at a facility, including hazards associated with said materials, ecology-toxicity and environmental release information [0416]; [0417]. Information as to *wherein based on the types and input amounts of the*

*materials that are input in a certain process... said chemical substances that are released are set* is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. See: *In re Gulack* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) *In re Dembiczak* 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).

Claim 10. Said system, including a database containing information including investment effectiveness including tracking cost related to environmental health and safety regulations [0034]; [0385]; [0421].

Claim 11. Said system, comprising: a database containing environmental release related information [0416]; [0417]. Information as to *wherein ... release information prescribes the relationship ... materials that are input into equipment* is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. See: *In re Gulack* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) *In re Dembiczak* 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).

Claim 12. Said method, including: Identifying the chemical substances of the materials used [0416]; identifying environmental hazards associated with materials used [0416]; tracking hazardous materials and wastes, including movement and environmental releases [0417]; [0419]; evaluating environmental effects due to discharging the hazardous materials and wastes during the releases [0417]; [0419].

Claim 15. Said system, comprising: a plurality of equipment; and said database contains information related to investment and environmental compliance effectiveness [0034]; [0421]. (Examiner understands the word *equipment* as encompassing plural items used in operation or activity. See: Merriam-Webster's Collegiate Dictionary; 10<sup>th</sup> ed.)

Claim 16. Said system, comprising: a plurality of equipment; and said database contains information related to investment and environmental compliance effectiveness [0034]; [0421]. (Examiner understands the word *equipment* as encompassing plural items used in operation or activity. See: Merriam-Webster's Collegiate Dictionary; 10<sup>th</sup> ed.)

Claim 17. Said system, comprising: a database containing environmental release related information, which is represented in table format [0430].

Claim 18. Said system, comprising: a database containing environmental release related information, which is represented in table format [0430].

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frankland in view of Fasca (US 2002/0065581 A1).

Frankland teaches all the limitations of claims 13-14, including implementing pollution prevention projects [0419]; except explicitly teaching evaluating the equipment that reduce chemical substances released.

Fasca teaches a system and method for reviewing historical data and performing forecasting simulations relating to pollutant emissions from power plant, wherein various pollution reducing equipment are considered [0044].



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It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Frankland to include evaluating the equipment that reduce chemical substances released, as disclosed in Fascal, because it would allow managers of the industrial facility to find the best solution to meet the pollution generation threshold to comply with governmental regulations, as specifically stated in Fascal [0006].

Claim 14. Frankland teaches tracking hazardous materials and wastes, including distribution and use of the materials at the facility; and evaluating environmental effects due to discharging the hazardous materials and wastes during the releases [0419], thereby obviously indicating monitoring environmental effects in the case the equipment is installed.

***Examiner's Note***

Examiner has cited particular columns and line numbers or figures in the references as applied to the claims for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see form PTO-892).

The following U.S. patents are cited to further show the best domestically patented prior art found by the examiner:

US 2001/0042030 A1 to Ito et al. discloses information providing system comprising databases containing information related to parts including chemical material and environmental information.

US 2003/0004965 A1 to Farmer et al. discloses a system for disseminating hazard information about a material and its components.

The following foreign patent is cited to show the best foreign prior art found by the examiner:

JP 02001038340A discloses a method for evaluating environmental load at a design stage of equipment.

JP 02000029880A discloses a method for evaluating environmental influence by calculating the discharge of an environmental load substance generated at a facility.

Examiner suggests the Applicant review these documents before submitting any amendment.

Any inquiry concerning this communication should be directed to Igor Borissov at telephone number (703) 305-4649.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Receptionist whose telephone number is (703) 308-1113.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John Weiss, can be reached at (703) 308- 2702.

Any response to this action should be mailed to:

***Commissioner of Patents and Trademarks  
Washington D.C. 20231***

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or faxed to:

**(703) 305-7687** [Official communications; including After Final  
communications labeled "Box AF"]

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal  
Drive, Arlington, VA, 7<sup>th</sup> floor receptionist.

Igor Borissov  
Patent Examiner  
Art Unit 3629



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